

## 1 CLAIMS

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3 1. A method for managing a workflow process to bring execution time for  
4 said process at least closer to an expected deadline, said process including a  
5 plurality of work nodes and a set of priority levels associated with each work  
6 node, said method including the steps of:

7 generating for each work node a set of expected time to complete (ETC)  
8 values for each priority level, each ETC value denoting a cumulative time to  
9 complete the process including the time taken by the corresponding node to  
10 complete its activity for a selected priority level;

11 selecting for each work node a priority level that has a corresponding  
12 ETC value less than or equal to a remaining time available to meet said  
13 deadline; and

14 executing activities associated with said work nodes in accordance with  
15 said selected priority levels to substantially meet said expected deadline.

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17 2. A method according to claim 1 wherein each priority level is selected so  
18 that the difference between said deadline and the ETC value is a minimum.

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20 3. A method according to claim 1 wherein said ETC values are generated  
21 from historical data collected from completed process instances during a  
22 learning phase.

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24 4. A method according to claim 1 wherein said ETC values are generated  
25 using formula  $ETC = \eta + 2\sigma$  and wherein  $\eta$  is a statistical mean and  $\sigma$  is a  
26 statistical standard deviation of values collected during a learning phase.

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28 5. A method according to claim 1 wherein said executing is performed by at  
29 least one business object.

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31 6. A system for managing a workflow process to bring execution time for  
32 said process at least closer to an expected deadline, said process including a  
33 plurality of work nodes and a set of priority levels associated with each work  
34 node, said system including:

1 means for generating for each work node a set of expected time to  
2 complete (ETC) values for each priority level, each ETC value including a time  
3 taken by the corresponding node to complete its activity for a selected priority  
4 level;

5 means for selecting for each work node a priority level that has a  
6 corresponding ETC value less than or equal to a remaining time available to  
7 meet said deadline; and

8 means for executing activities associated with said work nodes in  
9 accordance with said selected priority levels such that the said expected  
10 deadline is substantially met with a high probability.

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12 7. A system according to Claim 5 wherein each priority level is selected so  
13 that the difference between said deadline and the ETC value is a minimum.

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15 8. A system according to claim 5 wherein said ETC values are generated  
16 from historical data collected from completed process instances during a  
17 learning phase.

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19 9. A system according to claim 5 wherein said ETC values are generated  
20 using the formula  $ETC = \eta + 2\sigma$  and wherein  $\eta$  is a statistical mean and  $\sigma$  is a  
21 statistical standard deviation of values collected during a learning phase.

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23 10. A system according to claim 6 wherein said means for executing includes  
24 at least one business object.

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